

Name: \_\_\_\_\_

**at1121exam\_practice: Radicals and Squares (v601)**

**Question 1**

Simplify the radical expressions.

$$\sqrt{20}$$

$$\sqrt{98}$$

$$\sqrt{27}$$

**Question 2**

Find all solutions to the equation below:

$$\frac{(x-7)^2}{2} - 9 = -1$$

**Question 3**

By completing the square, find both solutions to the given equation. *You must show work for full credit!*

$$x^2 - 8x = -7$$

**Question 4**

A quadratic polynomial function is shown below in standard form.

$$y = 3x^2 - 30x + 81$$

Express the function in **vertex form** and identify the **location** of the vertex.